UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2178	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/932,110	BIRDER, MATTHEW D.
	Examiner	Art Unit	
	Thu V Huynh	2178	

-- The MAILING DATE of this communicati n appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 August 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-6,8-22 and 24-32_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6,8-22 and 24-32_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _07/30/04_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   This action is responsive to communications: application filed on 08/16/2001.

2.   Claims 6 and 22 are amended.

3.   Claims 7 and 23 are canceled.

4.   Claims 1-6, 8-22, 24-32 are pending in the case. Claims 1 and 17 are independent claims.

5.   The rejection of claims 6-7 and 22-23 are rejected under 35 U.S.C. 112, first paragraph,

as failing to comply with the enablement requirement, have been withdrawn in view of

the amendment.

6.   The rejections of claims 6-7 and 22-23 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention, have been withdrawn in view of

the amendment.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   **Claims 1-8, 14-16, 17-24 and 30-32 remain rejected under 35 U.S.C. 102(e) as being**

anticipated by <u>Worden</u>, US 2003/0149934 A1, filed 05/2001.

Regarding independent claim 1, Worden teaches the steps of:

- analyzing a first document (Worden, page 3, paragraphs 38- 39; analyzing first XML

  document for mapping process);

- analyzing a second document (Worden, page 3, paragraphs 38-39; analyzing second

  XML document for mapping process); and

- automatically generating, based upon said first and second document, a

  transformation document which, when processed in conjunction with said first

  document gives rise to a result document that is at least an approximation of said

  second document (Worden, page 3, paragraphs 39-41; automatically generating a

  transformation document (XSLT) to translate the first XML document or a document

  in first XML language to a document in second XML document).

Regarding dependent claim 2, which is dependent on claim 1, Worden teaches the

limitations of claim 1 as explained above. Wordern teaches wherein said first and second

document are XML (eXtensible Markup Language) documents (Worden, page 3, paragraph 39;

first and second document are XML document).

Regarding dependent claim 3, which is dependent on claim 2, Worden teaches the

limitations of claim 2 as explained above. Worden teaches wherein said transformation

document is an XSLT (eXtensible Stylesheet Language Transformation) document (Worden,

page 3, paragraphs 39-40; transformation document is XSLT document).

Regarding dependent claim 4, which is dependent on claim 1, Worden teaches the

limitations of claim 1 as explained above. Worden teaches wherein automatically generating said

transformation document comprises:

- selecting a particular data structure pattern that occurs in said second document

    (Worden, page 3, paragraph 38; page 13, paragraph 239; and page 16, paragraph 298;

    a particular data structure in the second XML document must be selected to map

    XML objects, such as element types, attributes and content model links between two

    XML documents);

- determining whether said first document comprises a matching data structure pattern

    that matches said particular data structure pattern (Worden, page 3, paragraph 38;

    page 13, paragraph 239; and page 16, paragraph 298; determing matching data to map

    XML objects, such as element types, attributes and content model links between two

    XML documents in to a MDL file); and

- in response to a determination that said first document comprises said matching data

    structure pattern, inserting a template comprising one or more actions into said

    transformation document, said template being invoked when a particular triggering

    data structure pattern is encountered during processing of said transformation

    document, and when invoked, cause said particular data structured pattern to be create

    in said result document (Worden, page 13, paragraph 239; page 17, paragraphs 304-

    305; page 40, 851; and appendix A; based on mapping results, automatically

    generating XSLT transformation document consisting templates which contain one or

    more actions, said template being invoked when "<xsl:template match =

"/schools3">" trigger pattern is encountered during applying the transformation

document to the first XML document to provide a document in second XML

language document).

Regarding dependent claim 5, which is dependent on claim 4, Worden teaches the

limitations of claim 4 as explained above. Worden teaches said particular triggering data

structure pattern comprises said matching data structured pattern (Worden, appendix A,

triggering pattern comprises attribute "school3" in the first XML document).

Regarding dependent claim 6, which is dependent on claim 4, Worden teaches the

limitations of claim 4 as explained above. Worden teaches wherein automatically generating

said transformation document comprises:

- in response to a determination that said first document does not comprise a non-

   matching data structure pattern that does not match any data structure pattern that

   occurs in said second document, inserting a non-match template comprising one or

   more actions into said transformation document, said non-match template specifying

   a special trigger pattern which indicates to a user that a triggering data structure

   pattern needs to be specified for said non-match template, said non-match template, if

   invoked, causing said particular data structured pattern to be create in said result

   document (Worden, page 41, paragraphs 897-902, if missing mapping of an element

   between two XML language document occurs, creating the XSLT which outputs a

   warning message for user enters a mapping for the element. This inherently discloses

that the XSLT document must include a template comprising action needs to provide

message for the user when transformation process and the triggering data structure

pattern must be included an indication of missing mapping occurs).

Regarding dependent claim 8, which is dependent on claim 4, Worden teaches the

limitations of claim 4 as explained above. Worden teaches wherein automatically generating said

transformation document comprises:

- selecting a non-matching data structure pattern that occurs in said first document that

    does not match any data structure pattern that occurs in said second document

    (Worden, page 41, paragraphs 897-901, if missing mapping of an element between

    two XML language document occurs); and

- inserting an action-needed template into said transformation document, said action-

    needed template being invoked when said non-matching data structure pattern is

    encountered during processing of said transformation document, said action-needed

    template comprising an indication that one or more action needs to specified for said

    action-needed template (Worden, page 41, paragraphs 897-902, if missing mapping

    of an element between two XML language document occurs, creating the XSLT

    which outputs a warning message for user enters a mapping for the element. This

    inherently discloses that the XSLT document must include a template comprising

    action needs to provide message for the user when transformation process).

Regarding dependent claim 14, which is dependent on claim 1, Worden teaches the limitations of claim 1 as explained above. Worden teaches the steps of wherein analyzing said first document comprises: compiling a first list of data structure patterns that occur in said first document (Worden, page 3, paragraphs 38, 239, 243, 245, 248, and 301); and wherein analyzing said second document comprises: compiling a second list of data structure patterns that occur in said second document (Worden, page 3, paragraphs 38, 239, 243, 245, 248, and 301).

Regarding dependent claim 15, which is dependent on claim 1, Worden teaches the limitations of claim 1 as explained above. Worden teaches processing said transformation document in conjunction with a third document to derive a transformed document, wherein said third document is a different document from said first document (Worden, page 3, paragraphs 39-41; automatically generating a transformation document (XSLT) to translate the first XML document or a document in first XML language (third document) to a document in second XML document).

Regarding dependent claim 16, which is dependent on claim 15, Worden teaches the limitations of claim 15 as explained above. Worden teaches wherein said first document is of a particular type, and wherein said third document is of the same particular type (Worden, page 3, paragraphs 39-41; the first XML document in a first XML based language and the third document is also a first XML based language).

Claims 17-22, 24 and 30-32 are for a computer system performing the method of claims 1-6, 8 and 14-16, respectively and are rejected under the same rationale.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

(b) This application currently names joint inventors. In considering patentability of the claims under 35
U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the
time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the
obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly
owned at the time a later invention was made in order for the examiner to consider the applicability of 35
U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10.   **Claims 9-11 and 25-27 remain rejected under 35 U.S.C. 103(a) as being**

unpatentable over <u>Worden as applied to claims 1 and 17 above</u>, and further in view of

<u>Wheeler</u> et al., US 2002/0055932 A1, filed 08/06/2001.

Regarding dependent claim 9, which is dependent on claim 1, Worden teaches the

limitations of claim 1 as explained above. Worden teaches wherein automatically generating

said transformation document comprises:

- selecting a particular data structure pattern that occurs in said second document

  (Worden, page 3, paragraph 38; page 13, paragraph 239; and page 16, paragraph 298;

  a particular data structure in the second XML document must be selected to map

  XML objects, such as element types, attributes and content model links between two

  XML documents); and

- in response to a determination that said first document comprises said matching data

  structure pattern inserting a template comprising one or more actions into said

transformation document, said template being invoked when a particular triggering

data structure pattern is encountered during processing of said transformation

document, and when invoked, causes said particular data structure pattern to be

created in said result document (Worden, page 13, paragraph 239; page 17,

paragraphs 304-305; page 40, 851; and appendix A; based on mapping results,

automatically generating XSLT transformation document consisting templates which

contain one or more actions, said template being invoked when "<xsl:template match

= "/schools3">" trigger pattern is encountered during applying the transformation

document to the first XML document to provide a document in second XML

language document).

Worden does not explicitly disclose the steps of: determining a synonymous data

structure pattern that is synonymous with said particular data structure pattern selecting a

particular data structure pattern that occurs in said second document; and determining whether

said first document comprises a matching data structure pattern that matches said synonymous

data structure pattern.

Wheeler teaches:

- determining a synonymous data structure pattern that is synonymous with said

  particular data structure pattern selecting a particular data structure pattern that occurs

  in said second document (Wheeler, page 3, paragraph 20; using synonym table

  lookup to determine data structure matching between source and target document);

  and

- determining whether said first document comprises a matching data structure pattern that matches said synonymous data structure pattern (Wheeler, page 3, paragraph 20 and page 9, paragraph 80; accessing a synonym table lookup to determine data structure, such as element or attribute in the source document that matches the data structure in the target document for mapping).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Wheeler's comparison technique into Worden to facilitate the mapping process, since many of comparison techniques, such as using synonym table lookup, extract string match, similarly match, etc. can be applied into XML document for mapping and transforming documents as Wheeler disclosed (Wheeler, page 3, paragraph 20 and page 7, paragraphs 65-68 and figures 7A).

Regarding dependent claim 10, which is dependent on claim 9, Worden and Wheeler teach the limitations of claim 9 as explained above. Worden teaches said particular triggering data structure pattern comprises said matching data structured pattern (Worden, appendix A, triggering pattern comprises attribute "school3" in the first XML document).

Regarding dependent claim 11, which is dependent on claim 9, Worden teaches the limitations of claim 9 as explained above. Refer to the rationale relied to reject claim 9, the limitations of "accessing a set of information that indicates that said particular data structure pattern is synonymous with said synonymous data structure pattern" must be included in order to match pattern in mapping process. The rationale is incorporated herein.

Claims 25-27 are for a computer system performing the method of claims 9-11,
respectively and are rejected under the same rationale.

11.   **Claims 12 and 28 remain rejected under 35 U.S.C. 103(a) as being unpatentable
over <u>Worden further in view of Wheeler as applied to claims 11 and 27 above</u>, and further
in view of <u>Weinberg</u> et al., US 2002/0194196 A1, priority filed 10/2000.**

Regarding dependent claim 12, which is dependent on claim 11, Worden teaches the
limitations of claim 11 as explained above. Worden teaches wherein said set of information is
provided by a user.

Weinberg teaches transform tool allows a user modifies table lookup to create additional
relationships of a data source (Weinberg, page 4, paragraph 44).

It would have been obvious to a person of ordinary skill in the art at the time the
invention was made to have combined Weinberg's transform tool into Worden and Wheeler's
synonym table lookup to allow the user to add new words (patterns or synonyms), update
information and/or create additional relationships in the table lookup, since modified table
lookup would have provided accurately matching process. It is noted that modifying a dictionary
by adding and/or deleting new words was well known in the art.

Claim 28 is for a computer system performing the method of claim 12, and is rejected
under the same rationale.

12.   **Claims 13 and 29 remain rejected under 35 U.S.C. 103(a) as being unpatentable**

over <u>Worden as applied to claims 1 and 17 above</u>, **and further in view of <u>Wheeler</u> et al., US**

2002/0055932 A1, filed 08/06/2001 and <u>Menke</u>, US 2002/0123878 A1, filed 02/2001.

Regarding dependent claim 13, which is dependent on claim 1, Worden teaches the

limitations of claim 1 as explained above. However, Worden does not explicitly disclose the

match is identical match and the action is a copy action that cause the particular data structure

pattern to be copied into said result document.

Wheeler teaches comparison techniques include identical match, similar match and no

match for mapping and transformation documents (Wheeler, page 3, paragraph 20 and page 7,

paragraphs 65-68 and figures 7A).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Wheeler's comparison technique into Worden to facilitate

the mapping process, since many comparison techniques can be applied into XML document for

mapping and transforming documents as Wheeler disclosed (Wheeler, page 3, paragraph 20 and

page 7, paragraphs 65-68 and figures 7A).

Menke teaches XSLT stylesheet includes templates, said template comprising actions

wherein a copy action used to copy matching element in to a destination document (Menke, page

5, paragraph 47 and fig.1).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have combined Menke's copy action into Menke to copy the particular

data structure pattern into said result document when the first (source) and second (target)

documents have identically particular data structure pattern, since copy action would have

reproduced that particular data structure in the result document for transforming the first

document to the result document that is at least an approximation of the second document.

Claim 29 is for a computer system performing the method of claim 13, and is rejected

under the same rationale.

Response to Arguments

13.   Applicant's arguments filed on 08/18/2004 have been fully considered but they are not

persuasive.

Applicants argue with respect to claim 1 that "Woden starts with a set of mappings

between two XML based languages" and not the first and second documents.

Examiner disagrees. In Woden's implementation, the mapping refers to "specification of

which nodes should be visited and which paths traversed in an XML document to retrieve

information about a given class, attribute or relation in the class model" (Woden, page 2,

paragraph 0028). This is to be done by analyzing an (one) XML document. The point is further

clarified by Woden's paragraph 0039 as "using the set of mappings involves the steps of reading

XML documents defining of the sets of mappings between XML logical structures and business

information model logical structures". The translation from the first to the second document is

only carried out after they (first and second documents) are analyzed, mapped and the XSLT

generated - as specified by Woden in paragraph 0039 "messages can be translated from one

XML language [or document] to another using the sets [note plural] of mappings for the two

languages to some common business information model". It is clear therefore that the first and

second documents must be analyzed and mapped to some model(s) then the translation steps are

performed.

Applicants argue that in Woden's implementation, the XML documents are not even

considered after the XSLT document is generated, the document in the second document is not

even produced after the XSLT is applied to the first XML document, and the transformation

document is not generated based the document in the second XML document.

All of these are incorrect, because of the Applicants' view that "Woden starts with a set

of mappings between two XML based languages" and not the first and second documents as

mentioned above. Please refer to the above discussion in which Examiner has clearly pointed

out that Woden's transformation document is indeed generated based on both the first and

second XML documents. This generated XSLT transformation document is of coursed to be

used in conjunction with the first XML document to translate it to the second XML document as

mentioned in Woden's paragraph 0040.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thu V Huynh whose telephone number is (571) 272-4126. The

examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen S Hong can be reached on (571) 272-4124. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVH
January 20, 2005

STEPHEN HONG
SUPERVISORY PATENT EXAMINER